

AMENDMENT UNDER 37 C.F.R. § 1.111
US Application. No. 09/769,407
Attorney Docket No. Q62879

REMARKS

Reconsideration and allowance of this application, as amended, are respectfully requested. Claims 8-12 have been withdrawn from consideration. New claims 13-16 have been added. Claims 1-7 and 13-16 are now pending in the application. Applicant acknowledges with gratitude the indication that claims 2, 3 and 5-7 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, the rejections are respectfully submitted to be obviated in view of the amendments and remarks presented herein.

Rejection Under 35 U.S.C. § 102(e) - Frank et al.

Claims 1 and 4 have been rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Frank et al. (U.S. Patent Number 6,731,622 B1) (hereinafter “Frank”). The rejection is respectfully traversed.

Applicant’s claimed invention relates to a receiver comprising a searcher preparing a delay profile to produce path information. The path information is monitored, and a detection signal is generated when main propagation paths are stable, and the searcher is controlled to intermittently operate at a predetermined intermittent period in response to the detection signal.

Applicant respectfully submits that the disclosure of Frank does not anticipate the claimed invention. Frank discloses a multipath propagation delay determining means, where a power delay profile is calculated by averaging delay profiles estimated over a plurality of successive time slots and frames. The delay profile is searched for local maxima corresponding

to the individual paths. The delay profiles for currently active sectors (where the most signal energy is currently found) are recalculated and updated at a minimum update time, which is a fixed value (i.e. 10 ms). The update time for scanning the non-active sectors may be a fixed value equal to or greater than the minimum update time. A path selection unit within a searching and tracking unit outputs new strongest paths and new selection information at the update time (10 ms) at the minimum every frame period (column 16, lines 29-31). The path selection unit does this by checking the selected maxima, in the calculated delay profiles, against a threshold. Only those maxima in each delay profile which still exceed the threshold are kept, resulting in a measure of the propagation paths that carry the most energy (column 17, lines 23-35).

Additionally, in Frank's tracking and control unit, the update time is determined for the power delay spectrum updating. The update time for active sectors need not necessarily be the same as in non-active sectors, however, it is preferable to have the same number of accumulations in the active sectors and the non-active sectors. A scanning schedule is developed, where active and non-active sectors are set to a fixed update time. With a fixed update time for active sectors (10 ms), the scanning of the active sectors is maintained in every frame wherein the last four time slots are used for the scanning of the non-active selectors.

While Frank may refer to updating a power delay spectrum with delay times of a number of propagation paths, and developing a scanning schedule for such updating, there is no teaching of monitoring the path information from the searcher to produce a detection signal when the main propagation paths are stable for a predetermined time interval, as claimed. There is also no teaching in Frank of controlling the searcher in response to the detection signal, to make the

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searcher intermittently operate at a predetermined intermittent period, as claimed. Frank only calculates delay profiles, and double checks these profiles against a threshold, to ascertain maxima indicative of final selection paths. Examiner's reliance on column 16, lines 29-31, where new strongest paths are determined by the path selection unit at the update time (10 ms) actually teaches away from Applicant's invention, by specifying a preferred fixed update time. Conversely, Applicant's representative claim 1 recites "a searcher operation controlling means for controlling, in response to said detection signal, said searcher to make said searcher intermittently operate at a predetermined intermittent period." Frank's searcher is fixed to update at a designated period, and is not controllable to intermittently operate at a predetermined intermittent period, as Applicant's claims recite.

Even if Frank's maxima in the delay profile is considered to be stable when the maxima are found to be above a threshold, as is Examiner's contention, there is no teaching in Frank of a detection signal which is generated when propagation paths identified by the searcher are stable. In Applicant's claimed invention, the intermittent operation of the searcher is then controlled in response to the detection signal. Frank's threshold comparison merely leads to discarding of the maxima which do not meet the threshold. No detection signal is generated, and no further control is exhibited of an intermittent operation of the searcher. At least by virtue of the aforementioned differences, Applicant's claims 1 and 4 distinguish over Frank. Reconsideration and withdrawal of the rejection under 35 U.S.C. § 102(e) are respectfully requested.

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Newly Added Claims

Claims 13-16 are newly added by this Amendment and believed to be in condition for allowance.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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